Conservation Department Use Only		
WPA Town Filing Fee	\$	
NGWP Town Filing Fee	\$	
Waiver Fee	\$	

# APPLICATION FOR A PERMIT NEEDHAM GENERAL WETLANDS PROTECTION BYLAW ARTICLE 6

<b>☒</b> Notice of Intent	☐ Request for Determination of Applicability
Description of Project	The project consists of the demolish and reconstruct a single family home within the Inner
· · · · · · · · · · · · · · · · · · ·	Riparian of Rosemary Brook.
Project Location	Street:  Agggggan's Mon. 128  Payagl. 0061
	Assessor's Map: 128 Parcel: 0061
Registry Information	<b>Book:</b> Ctf # 203056
Applicant	Name:
	Address: 4 Hopedale Street
	Mendon,, MA
Owner (if different)	Name: Oakcrest Builders, Inc
owner (ir different)	Address: 4 Hopedale Street
	Mendon,, MA
Date of Filing	
Resources within which work is proposed:	<ul><li>☐ Bordering Vegetated Wetland</li><li>☐ Bank</li></ul>
morit is proposed.	<ul> <li>□ Bordering Land Subject to Flooding</li> <li>□ Isolated Land Subject to Flooding</li> <li>□ Buffer Zone</li> </ul>
This application □ <b>■ is</b> □ <b>□</b> Massachusetts Wetlands Pr	is not filed simultaneously with a NOI/RDA under the otection Act.
plans and documents are true and conformance with the requirement certify that all abutters and other	by certify under the penalties of perjury that this application and all supporting of complete to the best of my knowledge, and that these have been prepared in the Needham General Wetlands Bylaw and supporting regulations. I furthe parties have been notified of this application as required by the Bylaw. It for a consultant to review my application for the Commission.
Signature:	Date: 05/04/2017

#### **NOTICE OF INTENT**

#### **10 Winfield Street**

#### **PROJECT NARRATIVE**

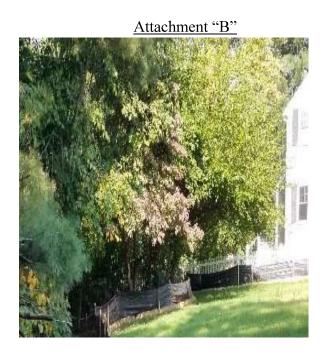
#### **INTRODUCTION**

This Notice of Intent for 10 Winfield Street, Needham Massachusetts has been filed under the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, 40; the "Act") and it's implementing regulations (310 CMR 10.00 *et seq.*; the "Regulations") and the Needham Wetlands Protection Bylaw (Article 6 of Town Bylaws) and the Town of Needham Wetlands Protection Regulations (JUNE 2017; the "Bylaw Regulations").

#### **Existing Site Conditions**

The subject site consists of 12,253 s.f., located to the Easterly side of the bank of Rosemary Brook. Locus property has a gradual slope from Winfield Street to the rear of the lot where we would find the armored bank of Rosemary Brook. It is developed with a single-family house, garage, concrete driveways, walk, deck, associated lawn which is extensively altered. There is a planting bed that has over grown with invasives and has been a deposit area for yard debris (attachment "A") on the north east corner. Additional, on the north west corner of locus is an area of sapling and small trees ("B") The Rosemary Brook cuts through the back of the locus property, totaling 665 s.f.





From the existing house to the armored bank it is 56.3 feet of lawn (attachment "C"). The portion of the locus lot within the Inner Riparian is 10,002 sq. ft of which 2,791 sf is the 25 foot no-disturb.

Notice of Intent 10 Winfield Street Needham



#### **Existing Resource Areas Subject to Protection**

Resource Areas on or adjacent to the site include: Bank and Land Under Waterbodies. Waterways associated with the Rosemary Brook is the 200-foot Riverfront Area is designated as resource area under 310 *CMR*. Based upon review of the *Massachusetts Natural Heritage Atlas, 14<sup>h</sup> Edition,* Priority Habitats and Estimated Habitats, Natick Quadrangle, valid from August 1, 2017, there are no Estimated Habitats, Priority Habitats or Certified Vernal Pools on or in the immediate vicinity of the lot.

#### **Proposed Project Description**

The proposed project consists of the razing and reconstrution of a single family home with ammendies within the inner riparian to Rosemary Brook and is a redevelopment project. The proposed house will be 37.1 feet from the armored bank of Rosemary Brook. Additionaly, the proponant is proposing to plant an area of 1074 s.f. along the armored bank as show on the attached plan with White and Mountain Laurel. The overgrown planting area with yard debris and invasives will be cleaned up. Further, the potential homeowner has proposed a white vinal fence on the toe of slope along the armeored bank. There will be a gap to allow for movement of amphibians and other freshwater aquatics. Due to the proximately of the Rosemary Brook the majority of the work is within the inner riparian to the bank of Rosemary Brook as noted below.

Existing impervious within the 100 foot inner riparian = 1,928 sf Proposed impervious within the 100 foot inner riparian = 2,931 sf Net increase of impervious within the 100 foot inner riparian = 1,003 sf

Existing impervious within the 200 foot outer riparian = 428 sf Proposed impervious within the 200 foot outer riparian = 563 sf

Notice of Intent 10 Winfield Street Needham

Net increase of impervious within the 200 foot outer riparian = 135 sf

Existing building within 100' inner riparian =1,324 sf Proposed building within 100' inner riparian = 2,368 sf Increased building footprint within 100' inner riparian = 1,044 s.f.

A soil elevation will be performed prior to the insulation of the infiltration system for suitable soils.

#### Infiltration/Recharge

The proposed project as required by the Town of Needham Article 7, Stormwater By-Law requires four Cultec Contractor 150 XLHD Recharger Drywell Chamber. The infiltration is designed for all of the increased building on said parcel as noted above and shown on the attached plan.

(2,368 s.f. x 1") / 12 = 197.33 cu. Ft.

Mitigated with 4 cultec contractor 150 hdxl Recharger drywell chambers (or suitable replacement) Capacity of 53.79 cu ft each. (4.89 cu ft/ft x 11 feet) Recharge will mitigate completely for the proposed footprint See drywell detail for specifications And plan for locations. Locations as shown May be adjusted prior to construction.

The proposed limit of work will be demarcated in the field by an erosion control barrier consisting of a straw wattle, along the armored bank as shown on the attached plan.

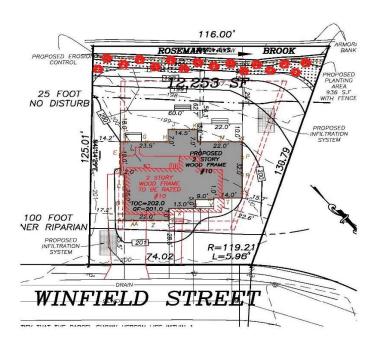
Furthermore, as noted previously, the proposed work will be adding in total one thousand, forty-four square feet of increase foot print to the current house within the Inner Riparian.

The proposed work will not require any trees to be removed on locus.

#### **Alternatives Analysis**

The proponant had origionally designed a larger deck at the rear of the proposed house. The deck was to spand the whole rear of the house as shown on attachement "D". The deck as orrigionally proposed would have been 29.1 feet to the edge of the armored bank. After discussions, the builder and the potential homeowner had reduced the size of the deck increasing the seperation to the bank. With this modification it reduced the impact to the Inner Riparian.

#### (Attachment "D")



#### **Other Resource Areas**

#### 10.58 Riverfront Area

- (4) General Performance Standard. Where the presumption set forth in 310 CMR 10.58(3) is not overcome, the applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c.131 § 40 and that the work, including proposed mitigation, will have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. In the event that the presumption is partially overcome, the issuing authority shall make a written determination setting forth its grounds in the Order of Conditions and the partial rebuttal shall be taken into account in the application of 310 CMR 10.58 (4) (d) 1.a. and c.; the issuing authority shall impose conditions in the Order that contribute to the protection of interests for which the riverfront area is significant.
- (a) <u>Protection of Other Resource Areas</u>. The work shall meet the performance standards for all other resource areas within the riverfront area, as identified in 310 CMR 10.30 (coastal bank), 10.32 (salt marsh), 10.55 (Bordering Vegetated Wetland), and 10.57 (Land Subject to Flooding). When work in the riverfront area is also within the buffer zone to another resource area, the performance standards for the riverfront area shall contribute to the protection of the interests of M.G.L. c. 131, § 40 in lieu of any additional requirements that might otherwise be imposed on work in the buffer zone within the riverfront area.

- 1. <u>10.54 Bank</u>: No work is proposed to the Bank of the Rosemary Brook.
- 2. <u>10.56 Land Under Water Bodies and Waterways</u>: This project does not include work in Land Under Water Bodies and Waterways.
- (b) <u>Protection of Rare Species</u>. No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, as identified by the procedures established under 310 CMR 10.59 or 10.37, or which will have any adverse effect on vernal pool habitat certified prior to the filing of the Notice of Intent.

Review of the Massachusetts Natural Heritage Atlas, 13<sup>th</sup> Edition, Priority Habitats and Estimated Habitats, Natick Quadrangle, valid from October 1, 2008, indicates there are no Estimated Habitats or Priority Habitats, Certified or Potential Vernal Pools located on or in the immediate vicinity of the site.

(c) <u>Practicable and Substantially Equivalent Economic Alternatives</u>. There must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131 § 40.

The proponant had originally designed a larger deck at the rear of the proposed house. The deck was to spand the whole rear of the house as shown on attachement "C". The deck as orriginally proposed would have been 29.1 feet to the edge of the armored bank.

#### (1) Performance Standards Applicable to Work On a Bank.

- (a) Any proposed work, permitted by the Commission, on a Bank shall not impair the physical stability of the Bank; the water-carrying capacity of the existing channel within the Bank; the capacity of the bank to protect ground water and surface water quality; the Needham Wetlands Regulations 32 June 2017capacity of the Bank to provide breeding habitat, escape cover, and food for fisheries; and the capacity of the Bank to provide wildlife habitat.
- (b) Where a Bank is significant to wildlife habitat, any alteration of the Bank or the vegetation within 25 feet of that Bank is deemed to alter the capacity of the Bank to provide wildlife habitat.
- (c) Where a Bank is significant to the protection of fisheries, any alteration of the Bank or the vegetation on that Bank is deemed to alter the capacity of the Bank to protect fisheries.
- (d) Any proposed work, permitted by the Commission, shall meet the performance standards specified in Section 2.06(3).

#### (3) Performance Standards

The performance standards listed below are critical to the protection of the Interests of the Bylaw. These include shortand long-term protection of the wildlife habitat capacity and water quality within the adjacent Water Body, Waterway, Bank, or Vegetated Wetland, as well as the wildlife habitat present within the Buffer Zone and adjacent resources.

Notice of Intent 10 Winfield Street Needham

(a) No construction within 25 feet of the limit of Bank or Vegetated Wetland ("The 25-Foot Buffer Zone") may be permitted. Construction is here defined to include (but not limited to) all new roadways, driveways, buildings, decks (except as in (b) below), clearing and grading, stormwater detention basins, and point-source discharges. Any construction within the Buffer Zone must be designed to preserve a minimum of 25 feet of undisturbed natural vegetation and soils adjacent to a Vegetated Wetland or Bank.

Mitigation plantings and grading are proposed within the 25 feet of the armored bank. The plantings and regrading will reduce the surface runoff and improve the function of the buffer. Additionally, the overgrown planting area will be cleared of invasives and yard debris.

(b) Work within 25 feet of the limit of Bank or Vegetated wetland may be permitted when the work consists of:
□ removing existing structures;
Needham Wetlands Regulations 40 June 2017
□ planting native tree, shrub, or herbaceous species;
$\Box$ removing invasive plant species and restoring native vegetation;
$\square$ adding a deck or patio to an existing dwelling, where no new impervious surfaces are proposed and the work area is
existing lawn.

(c) Where the Buffer Zone provides wildlife habitat (i.e., is forested, meadowland, or otherwise undeveloped except for lawful existing lawn and ornamental or vegetable gardens), no alteration of vegetation or construction within 50 feet of the limit of Vegetated Wetland or Bank (the "50-Foot Buffer Zone") is permitted.

#### Currently the vegetation within the 50 Foot Buffer is lawn.

(d) No construction may be permitted within 100 feet of a Vernal Pool, as defined in Section 1.04 above.

#### No Vernal Pool is found on or around locus property.

(e) No work within the Buffer Zone shall impair the water quality, water temperature, or wildlife habitat of the adjacent Water Body, Waterway, Bank, or Vegetated Wetland.

# All impervious will be infiltrated as noted on the attached plan and required per Town of Needham Article 7, Stormwater By-Law. Additional, the plantings and regrading will reduce surface runoff.

(f) Where new point-source discharges are proposed within the Buffer Zone, a comprehensive stormwater management system shall be designed that will not degrade the values or functions of the receiving or downstream Water Bodies, Waterways, or Vegetated Wetlands, surface water, or ground water. Such Stormwater management systems shall employ Best Practical Measures. Any point-source discharge must be designed to discharge water at non-erosive velocities equal to 2 c.f.s (cubic feet per second) or less.

#### No point-source discharge is proposed within the project.

(g) Where stormwater detention basins (including any infiltration or recharge basins) are proposed within the Buffer Zone, these shall be designed to be maintenance-free, selfcleaning, and to deter acts of vandalism. The inlet and outlet shall be designed to avoid scour and erosion of the basin bottom and discharge channel. The basin must be designed to avoid or minimize direct flows between the inlet and outlet, and to maximize the stormwater residence times.

All impervious from the proposed structure will be infiltrated as noted on the attached plan and required per Town of Needham Article 7, Stormwater By-Law.

(h) Where proposed work within the Buffer Zone will increase impervious surfaces and reduce groundwater recharge, infiltration measures must be designed to maintain said groundwater recharge.

# All impervious from the proposed structure will be infiltrated as noted above and on the attached plan as required per Town of Needham Article 7, Stormwater By-Law.

(i) Erosion and sedimentation controls must be utilized for any construction within the Buffer Zone that will result in exposed soils. An erosion and sedimentation control plan must be prepared which provides specifications for temporary and permanent soil stabilization, using Best Practical Measures. No silt or sediment may be permitted to enter wetland resource areas during or subsequent to construction.

# The proposed limit of work will be demarcated in the field by an erosion control barrier consisting of a straw wattle along the armored bank.

This is a redevelopment project and the Outer Riparian does "play a role in protecting the interests in the bylaw". The lot is currently improved with a single-family house, driveway and other site features and will continue to serve in the same function to the wetland when completed with improvements.

Notice of Intent 10 Winfield Street Needham



#### WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

NEEDHAM

City/Town

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return





Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

#### A. General Information

1.	Project Location (Note: electronic filers will click on button to locate project site):					
	10 Winfield Street	Needha	am MA			
	a. Street Address	b. City/Town	c. Zip Code			
	Latituda and Landituda.	-32.03704	40 115.926550			
	Latitude and Longitude:	d. Latitude	e. Longitude			
	128	061				
	f. Assessors Map/Plat Number	g. Parcel /Lot	Number			
2.	Applicant:					
	Robert	Ro	oach			
	a. First Name	b. Last Na	me			
	Oakcrest Builders, Inc					
	c. Organization 4 Hopedale Street					
	d. Street Address					
	Mendon	MA	01756 1072			
	e. City/Town	f. State	$\frac{01756-1073}{\text{g. Zip Code}}$			
	508-958-6070		te1@gmail.com			
	h. Phone Number i. Fax Number	j. Email Address	tte i (a gillaii.com			
		•				
3.	Property owner (required if different	from applicant): Ch	eck if more than one owner			
	a. First Name	b. Last Na	me			
	c. Organization	c. Organization				
	d. Street Address					
	e. City/Town	f. State	g. Zip Code			
	h. Phone Number i. Fax Number	j. Email address				
	II. I Holle Nulliber	J. Email address				
4.	Representative (if any):					
	Diane	Simone	:11i			
	a. First Name	b. Last Na				
	Field Resources, Inc					
	c. Company					
	281 Chestnut Street					
	d. Street Address					
	Needham	MA	02492			
	e. City/Town	f. State	g. Zip Code			
	781-444-5936		ces@hotmail.com			
	h. Phone Number i. Fax Number	j. Email address				
5.	Total WPA Fee Paid (from NOI Wet	land Fee Transmittal Form):				
	\$ 750.00	\$ 362.50	\$ 387.50			
	a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid			



### WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

⊃rovi	ded by MassDEP:
	-
_	
	MassDEP File Number
Ī	Document Transaction Number
	NEEDHAM
-	City/Tayun
,	City/Town

#### A. General Information (continued)

<ol><li>General Project Description</li></ol>	on:
---	-----

Ο.	The proposed project is the demolish and reco- all within the inner Riparian of Rosemary Bro- house and all work.				
7a.	Project Type Checklist: (Limited Project Types see	Section A. 7b.)			
	1. X Single Family Home	2. Residential Subdivision			
	3 Commercial/Industrial	4 Dock/Pier			
	5. Lutilities	6. — Coastal engineering Structure			
	7 Agriculture (e.g., cranberries, forestry)	8 Transportation			
	9. — Other				
7b.	7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?  1. Yes X No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)				
	2. Limited Project Type				
	If the proposed activity is eligible to be treated as an CMR10.24(8), 310 CMR 10.53(4)), complete and at Project Checklist and Signed Certification.				
8.	Property recorded at the Registry of Deeds for:				
	Norfolk County	203056			
	a. County	b. Certificate # (if registered land)			
	c. Book	d. Page Number			
В.	<b>Buffer Zone &amp; Resource Area Impa</b>	acts (temporary & permanent)			
1.	Buffer Zone Only – Check if the project is located Vegetated Wetland, Inland Bank, or Coastal Re				
2.	<ul> <li>Inland Resource Areas (see 310 CMR 10.54-10 Coastal Resource Areas).</li> </ul>				
	Charle all that apply balance Attack paymetive and app	, accompany to a company taking also a will be at 15 according			

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

# **Massachusetts Department of Environmental Protection**Bureau of Resource Protection - Wetlands

#### WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided	d by MassDEP:
	,
Ma	ssDFP File Number
	CODE: The Hamber
_	
	cument Transaction Number
	NEEDHAM
	INDEDITAM
Cit	y/Town

#### B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Resour	ce Area	Size of Proposed Alteration	Proposed	d Replacement (if any)	
а. 🕳	Bank	1. linear feet	2. linear feet		
b. 🕳	Bordering Vegetated Wetland	1. square feet	2. square feet		
C. <b>—</b>	Land Under Waterbodies and	1. square feet	2. square	2. square feet	
	Waterways	3. cubic yards dredged			
Resour	ce Area	Size of Proposed Alteration	Proposed	d Replacement (if any)	
d. 🕳	Bordering Land Subject to Flooding	1. square feet	2. square	feet	
		3. cubic feet of flood storage lost	4. cubic fe	eet replaced	
e. 🕳	Isolated Land Subject to Flooding	1. square feet	' 		
f	Riverfront Area	cubic feet of flood storage lost     Rosemary Brook     Name of Waterway (if available) - spe		eet replaced	
2.	Width of Riverfront Area	• • • • • • • • • • • • • • • • • • • •	,		
	_ 25 ft Designated D	ensely Developed Areas only			
	■ 100 ft New agricultural projects only				
	$\underline{\underline{X}}$ 200 ft All other proj	ects			
	11,588 sf			11,588 sf	
a Tatal area of Divertions Area on the site of the proposed president.			square feet		
4.	Proposed alteration of the	Riverfront Area:			
	11,588 sf	10,002 sf		586 sf	
a. t	total square feet	b. square feet within 100 ft.	c. square fee	et between 100 ft. and 200 ft.	
5. Has an alternatives analysis been done and is it attached to this NOI? $oxed{\underline{X}}$ Yes $oxed{\underline{\hspace{1cm}}}$ Yes $oxed{\underline{\hspace{1cm}}}$			$\underline{X}$ Yes $\underline{\hspace{0.1cm}}$ No		
6. '	Was the lot where the activ	rity is proposed created prior to Aug	just 1, 1996	6? $\underline{X}$ Yes $\underline{\hspace{0.1cm}}$ No	
. <u> </u>	astal Resource Areas: (See	e 310 CMR 10.25-10.35)			

Note: for coastal riverfront areas, please complete Section B.2.f. above.



#### WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provi	ded by MassDEP:
Ī	MassDEP File Number
Ī	Document Transaction Number NEEDHAM
-	City/Town

#### B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resour	rce Area	Size of Proposed Altera	tion	Proposed Replacement (if any)
а. 🕳	Designated Port Areas	Indicate size under Laı	nd Under th	e Ocean, below
b. <b>_</b>	Land Under the Ocean	square feet     cubic yards dredged		
c. <b>_</b>	Barrier Beach	Indicate size under Coa	stal Beache	es and/or Coastal Dunes below
d. 🕳	Coastal Beaches	1. square feet		2. cubic yards beach nourishment
e. 🕳	Coastal Dunes	1. square feet		2. cubic yards dune nourishment
		Size of Proposed Altera	tion P	roposed Replacement (if any)
f. <b>—</b>	Coastal Banks Rocky Intertidal	1. linear feet		
g. <b>—</b>	Shores	1. square feet		
h. 🕳	Salt Marshes	1. square feet		2. sq ft restoration, rehab., creation
i. 🕳	Land Under Salt Ponds	1. square feet		
		2. cubic yards dredged	<u></u>	
j. <b>—</b>	Land Containing Shellfish	1. square feet		
k. <b>_</b>	Fish Runs			inland Bank, Land Under the Vaterbodies and Waterways,
		1. cubic yards dredged		
l. <b></b>	Land Subject to Coastal Storm Flowage	1. square feet		
If the p	footage that has been enter			ource area in addition to the please enter the additional
a. square	e feet of BVW	b. squa	re feet of Salt I	Marsh
_ Pro	oject Involves Stream Cross	sings		
a. numbe	er of new stream crossings	b. numb	er of replacen	nent stream crossings

4.

5.



#### WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDFP File Number
Massber The Hamber
Document Transaction Number
NEEDHAM
NEEDHAM
City/Town

#### C. Other Applicable Standards and Requirements

\_\_ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists - Required Actions (310 CMR 10.11).

#### Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1.	Is any portion of the proposed project located in <b>Estimated Habitat of Rare Wildlife</b> as indicated on
	the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the
	Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the
	Massachusetts Natural Heritage Atlas or go to
	http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. $\blacksquare$ Yes $\overset{X}{}$ No	If yes, include proof of mailing or hand delivery of NOI to
	Natural Heritage and Endangered Species Program Division of Fisheries and Wildlife
$\frac{8/1/2017}{\text{b. Date of map}}$	1 Rabbit Hill Road Westborough, MA 01581

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please

complete Section C. r.c, and include requested materials with this Notice of Intent (NOI), OR
complete Section C.2.f, if applicable. If MESA supplemental information is not included with the NOI
by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).
c. Submit Supplemental Information for Endangered Species Review.

1.	Percentage/acreage of property to be altered:	
	(a) within wetland Resource Area	percentage/acreage
	(b) outside Resource Area	percentage/acreage
2.	Assessor's Map or right-of-way plan	of site

- 2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*
  - Project description (including description of impacts outside of wetland resource area & buffer zone)
  - Photographs representative of the site (b) \_\_\_

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

\*\* MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

wpaform3.doc • rev. 6/18/2020 Page 5 of 9

<sup>\*</sup> Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <a href="https://www.mass.gov/ma-">https://www.mass.gov/ma-</a> endangered-species-act-mesa-regulatory-review).



# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Prov	rided by MassDEP:
	MassDFP File Number
	Macober 1 no rambor
	Document Transaction Number
	NEEDHAM
	Citv/Town

#### C. Other Applicable Standards and Requirements (cont'd)

		••	• , ,
	Make	a-project-review).	ole at https://www.mass.gov/how-to/how-to-file-for-ssachusetts - NHESP" and <i>mail to NHESP</i> at
	Project	s altering <b>10 or more acres</b> of land, also sub	mit:
	(d) 🕳	Vegetation cover type map of site	
	(e) 🕳	Project plans showing Priority & Estima	ited Habitat boundaries
	(f) Of	R Check One of the Following	
	1. 🕳	https://www.mass.gov/service-details/e	MESA exemption applies. (See 321 CMR 10.14, xemptions-from-review-for-projectsactivities-in-nt to NHESP if the project is within estimated 1 10.59.)
	2. 🕳	Separate MESA review ongoing.	a. NHESP Tracking # b. Date submitted to NHESP
	3. 🕳	Separate MESA review completed. Include copy of NHESP "no Take" dete Permit with approved plan.	rmination or valid Conservation & Management
3.	For coasta		osed project located below the mean high water
	a. X Not a	applicable – project is in inland resource	area only b. <u>Yes</u> No
	If yes, inclu	ude proof of mailing, hand delivery, or ele	ectronic delivery of NOI to either:
	South Shore the Cape &	e - Cohasset to Rhode Island border, and Islands:	North Shore - Hull to New Hampshire border:
	Southeast M Attn: Enviro 836 South F New Bedfor	Marine Fisheries - Marine Fisheries Station nmental Reviewer Rodney French Blvd. rd, MA 02744 f.envreview-south@mass.gov	Division of Marine Fisheries - North Shore Office Attn: Environmental Reviewer 30 Emerson Avenue Gloucester, MA 01930 Email: dmf.envreview-north@mass.gov
	please cor		ense. For coastal towns in the Northeast Region, tal towns in the Southeast Region, please contact
	c. <b></b> Is	this an aquaculture project?	d. $oxed{\_}$ Yes $oxed{X}$ No
	If yes, inclu	ude a copy of the Division of Marine Fish	eries Certification Letter (M.G.L. c. 130, § 57).

wpaform3.doc • rev. 6/18/2020 Page 6 of 9



#### WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
NEEDHAM
City/Town

#### C. Other Applicable Standards and Requirements (cont'd)

4.	Is any portion of the	proposed project withi	an Area of Critica	ıl Environmental (	Concern (AC	CEC)?	?
----	-----------------------	------------------------	--------------------	--------------------	-------------	-------	---

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the

Department.

a.  $\blacksquare$  Yes X No

If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

(provided on your 5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water receipt page) (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a.  $\blacksquare$  Yes  $\overset{X}{\underline{\qquad}}$  No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

a.  $\blacksquare$  Yes  $\overset{X}{\blacksquare}$  No

- 7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
  - a. \_ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
    - 1. \_\_ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
    - 2. A portion of the site constitutes redevelopment
    - 3. Proprietary BMPs are included in the Stormwater Management System.
  - b.  $\overset{ ext{X}}{=}$  No. Check why the project is exempt:
    - 1.  $\frac{X}{}$  Single-family house
    - 2. \_ Emergency road repair
    - 3. \_ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

#### D. Additional Information

This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

- 1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



#### WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Drov	Provided by MassDEP:		
100	ided by Massber.		
	MassDEP File Number		
	Document Transaction Number		
	01 F		
	City/Town		

#### **D. Additional Information** (cont'd)

- 3. Lidentify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
- 4. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title	
Field Resources, Inc	Bradley J Simonelli, PLS
b. Prepared By	c. Signed and Stamped by
October 5, 2020	1" - 20'
d. Final Revision Date	e. Scale
f. Additional Plan or Document Title	g. Date

- If there is more than one property owner, please attach a list of these property owners not listed on this form.
- 6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
- 7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
- 8. X Attach NOI Wetland Fee Transmittal Form
- 9. Attach Stormwater Report, if needed.

#### E. Fees

1. Ee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2958	09/18/2020
2. Municipal Check Number	3. Check date
2959	09/18/2020
4. State Check Number	5. Check date
Oakcrest Builders, Inc	
6. Payor name on check: First Name	7. Payor name on check: Last Name

wpaform3.doc • rev. 6/18/2020 Page 8 of 9



#### WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Pro	vided by MassDEP:
	MassDEP File Number
	Document Transaction Number

#### F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant	9/18/2020 2. Date
3. Signature of Property Owner (if different)  5. Signature of Representative (if any)	4. Date 6. Date

#### For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

#### For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

#### Othor

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



#### Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

A. Applicant Information

#### **NOI Wetland Fee Transmittal Form**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

#### Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return





• •		
Location of Project:		
10 Winfield Street	Needham	MA
a. Street Address	b. City/Town	1717 1
2959	\$ 362.50	
c. Check number	d. Fee amount	
2. Applicant Mailing Address:		
Robert	Roach	
a. First Name	b. Last Name	
Oakcrest Builders, Inc		
c. Organization		
4 Hopedale Street d. Mailing Address		
d. Mailing Address		
Mendon	MA	01756
e. City/Town	f. State	g. Zip Code
h. Phone Number i. Fax Number	j. Email Address	
3. Property Owner (if different):		
a. First Name	b. Last Name	
c. Organization		
d. Mailing Address		
e. City/Town	f. State	g. Zip Code
h Phone Number i Fax Number	i Fmail Address	

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

#### B. Fees

Fee should be calculated using the following process & worksheet. *Please see Instructions before filling out worksheet.* 

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

**Step 4/Subtotal Activity Fee:** Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

**Step 6/Fee Payments:** To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.



#### **Massachusetts Department of Environmental Protection**

Bureau of Resource Protection - Wetlands

#### **NOI Wetland Fee Transmittal Form**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Fees (continued) Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Cat 2, A.) Single Family house	1	\$500.00	\$750.00
	Step 5/To	otal Project Fee:	\$750.00
	Step 6/	Fee Payments:	
	Total	Project Fee:	\$750.00 a. Total Fee from Step 5
	State share	of filing Fee:	\$362.50 b. 1/2 Total Fee <b>less</b> \$12.50
	City/Town share	e of filling Fee:	\$ 387.50 c. 1/2 Total Fee <b>plus</b> \$12.50

#### C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection Box 4062 Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

**To MassDEP Regional Office** (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

# 10 WINFIELD STREET

OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	СІТҮ	ST ZIP		PARCEL ID	PROPERTY ADDRESS
MULLEN, ROBERT A.+	MULLEN, JEAN M.	40 WINFIELD ST	NEEDHAM	MA 0	02492	1991270002800000	40 WINFIELD ST
MORRIS, SCOTT R. &	MORRIS, JENNIFER L.	7 PHEASANT RD	NEEDHAM	MA 0	02492	1991270002900000	7 PHEASANT RD
SMITH, KARA M. &	ROBINSON, MARISSA B.	22 WINFIELD ST	NEEDHAM	MA 0	02492	1991270003000000	22 WINFIELD ST
FALLAS, ALVARO A &	CHACON, ANA B	1397 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991270003100000	1397 GREAT PLAIN AVE
KRENGEL, MAXINE HOPE		1403 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991270003200000	1403 GREAT PLAIN AVE
DAVIS, BENJAMIN W. &	PERRY, JACQUELINE F.	1409 GREAT PLAIN AVE	NEEDHAM		02492	1991270003300000	1409 GREAT PLAIN AVE
NEEDHAM HOUSING AUTHORITY		28 ROBERT COOK DR	NEEDHAM		02494	1991270003400000	1415 GREAT PLAIN AVE
HOYE, KATHLEEN E. &	FEDEROW, KURT C	19 PHEASANT RD	NEEDHAM	MA 0	02492	1991270003900000	19 PHEASANT RD
GOLDSTEIN, ARNOLD M &	GOLDSTEIN, MARJORIE F	40 WARE RD	NEEDHAM		02492	1991280002800000	40 WARE RD
GREEN, JUDITH		34 WARE RD	NEEDHAM	MA 0	02492	1991280002900000	34 WARE RD
CHANG, HSIAO-HUI		22 WARE RD	NEEDHAM	MA 0	02492	1991280003000000	22 WARE RD
GILBERT, KARA A.&	ITZKOVITS, DAVID	4 WARE RD	NEEDHAM		02494	1991280003100000	4 WARE RD
SHERMAN, SCOTT &	SHERMAN, TRICIA	33 ABBOTT ST	NEEDHAM	MA 0	02492	1991280003200000	33 ABBOTT ST
COHEN, MITCHELL &	COHEN, BETH	39 ABBOTT ST	NEEDHAM	MA 0	02492	1991280003300000	39 ABBOTT ST
VANDAHM, ELIZABETH		43 ABBOTT ST	NEEDHAM	MA 0	02492	1991280003400000	43 ABBOTT ST
MITTAZ, JEAN-PIERRE &	MITTAZ, MARYBETH	35 WINFIELD ST	NEEDHAM	MA 0	02492	1991280005100000	35 WINFIELD ST
BLASZKOWSKY, JILL S.		53 WINFIELD ST	NEEDHAM	MA 0	02492	1991280005200000	53 WINFIELD ST
MILLER, JONATHAN W.	MILLER, IRENE ELIZABETH	63 WINFIELD ST	NEEDHAM	MA 0	02492	1991280005300000	63 WINFIELD ST
KNIGHTS, PETER B +	KNIGHTS, JANE Z	46 ABBOTT ST	NEEDHAM	MA 0	02492	1991280005500000	46 ABBOTT ST
GREGORY, HELEN J		38 ABBOTT ST	NEEDHAM	MA 0	02492	1991280005600000	38 ABBOTT ST
DOCKTOR, MICHAEL J & SARAH W	C/O SHAH, REENA M & AMEER T.	30 ABBOTT ST	NEEDHAM	MA 0	02492	1991280005700000	30 ABBOTT ST
MUTINGA, MUTHOKA L.		27 WINFIELD ST	NEEDHAM	MA 0	02492	1991280005800000	27 WINFIELD ST
GOLUBIC, ANNELIESE T.		19 WINFIELD ST	NEEDHAM	MA 0	02492	1991280005900000	19 WINFIELD ST
FLAGEL, ANDREW L. &	FLAGEL, JENNIFER R.	16 WINFIELD ST	NEEDHAM	MA 0	02492	1991280006000000	16 WINFIELD ST
DAVIDSON, MURRAY H. & MYRNA E	C/O OAKCREST BUILDERS INC	4 HOPEDALE ST	MENDON	MA 0	01756	1991280006100000	10 WINFIELD ST
BARRASSO, DOMENIC V. +	BARRASSO, CONSIGLIA	16 ABBOTT ST	NEEDHAM	MA 0	02492	1991280006200000	16 ABBOTT ST
SCHAFFSTEIN, MICHAEL J TR. &	LEONARD-SCHAFFSTEIN, JENNIFER L TR.	15 ABBOTT ST	NEEDHAM	MA 0	02492	1991280006300000	15 ABBOTT ST
KATZ, SCOTT F. &	KATZ, JILL K.	11 WARE RD	NEEDHAM	MA 0	02492	1991280006400000	11 WARE RD
JANELLE, NICOLE &	JANELLE, JODY L.	1351 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991280006800000	1351 GREAT PLAIN AVE
DEFILLIPO, PAUL		1357 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991280006900000	1357 GREAT PLAIN AVE
WALTERS, JOAN M. TR	GREAT PLAIN AVE 1365 REALTY TRUST	1365 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991280007000000	1365 GREAT PLAIN AVE
CURRAN, AUSTIN H. &	CURRAN, CHARLES F.	1375 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991280007100000	1375 GREAT PLAIN AVE
SHETE, ANAND &	SHETE, PALLAVI A	1381 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991280007200000	1381 GREAT PLAIN AVE
CHRISTOPHER, LENORA &	KIVELA, JASON W.	1389 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991280007300000	1389 GREAT PLAIN AVE
KRESS, HELENE W.		1410 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420001500000	1410 GREAT PLAIN AVE
MELANSON, DAVID J. &	MELANSON, NATALIE	1404 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420001600000	1404 GREAT PLAIN AVE
MCINTOSH, ROBERT R	C/O MCINTOSH R. JR. & MICHELLE S. TRS	512 WEXFORD DR	NICEVILLE	FL 3.	32578	1991420001700000	0 GEORGE ST
SMITH, CHARLES P &	SMITH MARY E	9 GEORGE ST	NEEDHAM	MA 0	02492	1991420006600000	9 GEORGE ST
RILEY, ROBERT J.+	RILEY, MARY A.	1394 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420006700000	1394 GREAT PLAIN AVE
MENACHEM, STEPHANIE K. &	MENACHEM, JESSE E.	1386 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420006800000	1386 GREAT PLAIN AVE
BRADLEY, ROBERT H. &	BRADLEY, GINA K.	1376 GREAT PLAIN AVE	NEEDHAM	-	02492	1991420006900000	1376 GREAT PLAIN AVE
LOPEZ-ROJAS, MAYRA D.		1370 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420007000000	1370 GREAT PLAIN AVE
MEMON, BABAR I. &	FARID, HUMA	1362 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420007113620	1362 GREAT PLAIN AVE
HUSICK, ANDREW J. &	HUSICK, CAROLINE B.	1364 GREAT PLAIN AVE	NEEDHAM	MA 0	02492	1991420007113640	1364 GREAT PLAIN AVE
SOCORY SHARON ANN		4000 O D T A T D T A T T			7647		

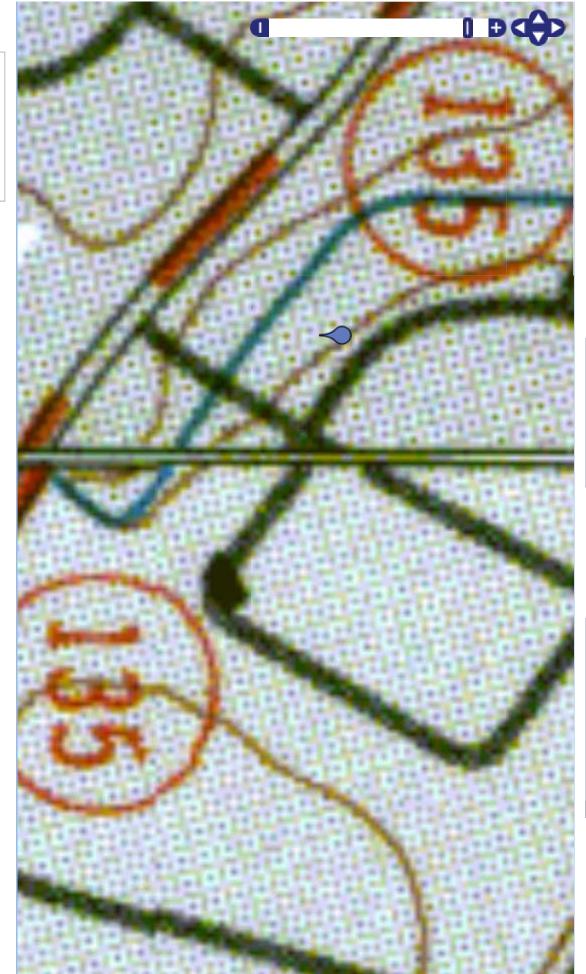




# Wiver OLIVER: MassGIS's Online Mapping Tool Please take our user survey.

10 Winfield St, needham

Zoom to a town



0 m

#### **BASBANES WETLAND CONSULTING**

39 Hardy St. Dunstable, MA 01827

October 7 2020

Debbie Anderson
Director of Conservation
Public Services Administration Building
500 Dedham Ave.
Needham, MA 02492

RE: 10 Winfield St Needham

Dear Ms. Anderson,

On behalf of Robert Roache, owner of 10 Winfield St., Needham, I am requesting a Waiver of Regulations and its associated fee to perform work within 25' No Disturb Zone at the above-mentioned property. The waiver request is to perform grading associated with the razing/rebuilding of a single-family home. The existing house, which is 56' from the Rosemary Brook, will be razed. The proposed house, while closer to the resource area will remain out of the 25' buffer at 37' away.

The resource area on the property is Rosemary Brook, a perennial stream, and the associated Riverfront Area. The work proposed, which consists of grading and planting only, is in the inner riparian zone as well as the 25' NDZ. In order to provide mitigation for this activity, a 1074 s.f. area within the 25' buffer will be supplied with plants to create a natural vegetated buffer between the brook and the yard. A fence will be installed to limit encroachment in to the brook.

#### 1.11 Waiver of Regulations

Strict compliance of these rules and regulations may be waived when, in the judgment of the Commission:

(a) Such action would serve a substantial public interest.

The project serves the homeowner only. No public interest would be served.

(b) Such as is required for compliance with the Massachusetts Contingency Plan

The project is not relevant to the MCP.

(c) Strict compliance would result in severe economic hardship greater in magnitude than the public interest to be served, OR

No severe hardship would result if the work were to not occur, however, the disturbance of the grading is temporary and the area will be provided with additional native plant species. The proposed enhancement of the resources area does provide a general benefit.

# d) A credible expert has demonstrated that the Resource Areas does not protect the public interests.

The following outlines the public interests protected in the Wetland Protections Act and the Needham Wetland Bylaw, and Riverfront Performance Standards and attempts to show how the resource area does or does not protect the interest.

**Public water supply-** The wetland system on the site is not associated with a public water supply. The 25' buffer area and riverfront area therefore do not protect the public interest of public water supply.

**Private water supply-** The wetland system in this area is not associated with a private water supply as the residences in this section are served by Town water. The 25' buffer area and riverfront area do not protect the public interest of private water supply.

**Groundwater and groundwater quality-** There is no BVW along this portion of the brook so any precipitation sheet flows to the brook or directly infiltrates in to the lawn. The amount of new impervious area on the lot consists of 1003 s.f. in the 100' Inner Riparian zone and 135 s.f. in the Outer Riparian Zone. None of this impervious area occurs within the 25' buffer. The increase in impervious are in the riverfront is being mitigated by the use of 4 Cultec drywell chambers and will therefore minimize the impact on groundwater.

Water quality in the numerous ponds of the Town – The 25' buffer is grass. Any benefit to the water quality to the ponds will be the same pre and post. The 25' buffer area and riverfront area may protect the public interest of water quality to the numerous ponds of the Town in a very minimal way such as soil stabilization and prevention of erosion, however, the work will have no impact on that interest. Site work will be temporary and erosion control will be installed, and exposed soils will be seeded to provide ongoing soil stabilization. There may be a minor improvement to water quality in that roof runoff will be infiltrated while it was not before, and the driveway will be pervious to also allow infiltration, therefore reducing runoff that may contain pollution.

**Flood control-** The area is not in a flood zone. Regardless, minor grading is proposed with an elevation change of approximately 2' at the most. Any function that these areas provide to contain flood water will be unaffected by the proposed work.

**Erosion and sediment control-** The 25' buffer and riverfront area in the location of the work is grass. The grass surface provides stabilization of the soils and prevents erosion into the adjacent wetland. The 25' buffer area and riverfront area in this location may provide some protection of the public interest of erosion control; however, after work is complete the all exposed soils will be provided with plantings or be maintained as lawn. Erosion control devices are to be installed during the work activity and will remain in place until the site is fully stabilized.

**Storm damage prevention-** The 25' buffer and riverfront area in the location of the work is grass. The grass surface provides stabilization of the soils and prevents erosion into the adjacent wetland during storm events thus aide in preventing further damage. The 25' buffer area and river front area in this location may provide some protection of the public interest of storm damage prevention in this regard; however, after work is after work is complete the all exposed soils will be provided with plantings or be maintained as lawn.

Water pollution- There may be an improvement to water quality in that roof runoff will be

infiltrated, therefore reducing runoff that may contain pollution or create erosion. The public interest of water pollution in the 25' buffer and riverfront areas will be negligible, if not slightly improved.

Wildlife and wildlife habitat- The site does not fall within a Priority or Estimated Habitat per NHESP 2008. The area of concern is partly maintained grass and existing house footprint. The river is artificially contained by stone retaining walls thus providing no true bank habitat function. The 25' buffer and riverfront area in this location do not provide protection of the public interest of wildlife habitat. The proposed plantings may increase wildlife habitat value.

**Fisheries-** There are no fisheries in the resource area on this site.

No waiver shall be granted unless the Commission determines that: There are not practicable alternatives to the proposed action;

The grading to occur in the 25' No Disturb Zone is associated with the house, which has a larger footprint; and to have flat back yard.

Alteration of the resource area has been minimized to be the greatest extent practicable;

The only work proposed in the 25' No Disturb Zone is grading to create a flat yard and the subsequent new plantings. The removal of yard debris in the buffer and the new plantings provided are proposed to mitigate the impact.

The work will be performed all within the limit of work established erosion control.

Compensatory or mitigation measures are taken, even at an off-site location, to protect the public interest in the protected Resource Area to be removed, filled, dredged, built upon, or altered;

- 1) Plants will be installed throughout the proposed new planting area. All species will be native and chosen from "Plants of Needham, Massachusetts 2000-2002" list. There will be a minimum of 3 species from the approved list.
- 2) The additional impervious area within the jurisdiction of the Massachusetts Wetlands Protection Act will be handled with 4 cultic contractor 150XLHD drywell chambers.
- 3) Erosion control will be installed prior to any work on site and remain in functional condition until all surfaces are stable and the approved of the issuing authority

Sincerely.

Leah D. Basbanes, M.A.

Leve D. Basbaner

Wetland Consultant/Biologist

#### **Notification to Abutters Under the Massachusetts**

Wetland Protection Act & the Needham Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and Needham Wetlands Protection Bylaw (Article 6) you are hereby notified of the following:

The name of the applicant is **Robert Roach** 

The applicant has filed a **Notice of Intent** with the Conservation Commission for the municipality of Needham, MA for the razing and reconstruction of a single family home.

The address of the lot where the activity is proposed is **10 Winfield Street**, (Assessor's Map 128 Parcel 061).

The hearing will be on October 22, 2020

Public Participation will be via Virtual Means Only - In light of the ongoing COVID-19 coronavirus outbreak, Governor Baker issued an emergency Order on March 12, 2020, allowing public bodies greater flexibility in utilizing technology in the conduct of meetings under the Open Meeting Law. The Needham Conservation Commission greatly values the participation of its citizens in the public meeting process, but given the current circumstances and recommendations at both the state and federal levels to limit or avoid public gatherings, including Governor Baker's ban on gatherings of more than 10 people, together with the present closure of Needham Town Hall, the Public Service Administration Building, and other public buildings, the Town has decided to implement the "remote participation" procedures allowed under Governor Baker's emergency Order for all boards, committees, and commissions. (More information about this order can be found on the back of this sheet.

#### The public may participate in this meeting via Remote Participation:

· From your computer, smart phone or tablet:

Link: https://us02web.zoom.us/j/82316889821 Meeting ID: 823 1688 9821

For the most up-to-date meeting credentials, or to access the meeting by phone, please refer to the meeting agenda. It will be posted to www.needhamma.gov at least 48 hours in advance of the meeting.

Copies of the application may be obtained digitally from the Conservation Commission Staff by emailing conservation@needhamma.gov. Alternatively, you may call our office at 781-455-7550 x222 and leave a message with your contact information and the project address and a Staff Member will return your call during regular business hours.

Notice of the public hearing, including its date, time and place, will be published at least five (5) days in advance in a newspaper of local distribution.

NOTE: You also may contact the nearest Department of Environmental Protection Regional Office for more information about this application or the MA Wetlands Protection Act. To contact the DEP, call the Northeast Region at 978-694-3200.

#### **COVID-19 Emergency Response:**

Implementation of Governor's Order Suspending Certain Provisions of the Open Meeting Law

In light of the ongoing COVID-19 coronavirus outbreak, Governor Baker issued an emergency Order on March 12, 2020, allowing public bodies greater flexibility in utilizing technology in the conduct of meetings under the Open Meeting Law. The Needham Conservation Commission greatly values the participation of its citizens in the public meeting process, but given the current circumstances and recommendations at both the state and federal levels to limit or avoid public gatherings, including Governor Baker's ban on gatherings of more than 25 people, together with the present closure of Needham Town Hall and other public buildings to the public, The Town of Needham has decided to implement the "remote participation" procedures allowed under Governor Baker's emergency Order for all boards, committees, and commissions. This means that:

- 1. All or any of the members of the public body may choose to participate in a public meeting via remote access. Meetings may be virtual, in their entirety.
- 2. The public will be provided with alternative access through which they can watch or listen to meetings "in real time," and meeting notices will specify the manner in which members of the public may access audio or video of the meeting as it is occurring.
- 3. If, despite our best efforts, our technological capabilities do not adequately support public access to virtual or remote meetings, the Needham Conservation Commission will ensure that an audio or video recording, transcript, or other comprehensive record of the proceedings at the meeting is posted on the Town's website as soon as possible after the meeting.
- 4. Notices for public hearings will contain additional information about how the public may participate via electronic/technological means.
- 5. Where individuals have a right, or are required, to attend a public meeting or hearing, they will be provided with information about how to participate in the meeting/hearing remotely.
- 6. Meeting notices will still be posted at least 48 hours in advance (not counting Saturdays, Sundays, or legal holidays), unless it is an emergency meeting as defined under the Open Meeting Law (in which event, the meeting notice will be posted with as much advanced notice as is possible in the circumstances). Minutes will still be taken.

Please check individual meeting agendas on the calendar on the Town's website, located at www.needhamma.gov for the latest information regarding meetings. Each meeting may experience unique circumstances that may require last minute changes in protocol, including cancellation or rescheduling. We appreciate your patience as we undergo this shift in a significant aspect of how the Town of Needham conducts business.

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitation on the number of people that may gather in one place, this meeting of the Needham Conservation Commission will be conducted via remote participation to the greatest extent possible. Specific information and the general guidelines for remote participation by members of the public and/or parties with a right and/or requirement to attend this meeting can be found on the Town of Needham website, at www.needhamma.gov. For this meeting, members of the public who wish to listen and/or watch the meeting may do so in the manner stated on the previous page by navigating to the Zoom Meeting via a web browser or by calling in by phone. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings in real time, via technological means. In the event that we are unable to do so, despite best efforts, we will post on the Needham Conservation Commission webpage an audio or video recording, transcript, or other comprehensive record of proceedings as soon as possible after the meeting.

Family	Common name	Scientific Name	Origin	Status
			Native,	rare = 1 site; uncommon =
			Introduced	
FERNS				
	ebony spleenwort	Asplenium platyneuron	N	rare
	maidenhair spleenwort	Asplenium trichomanes	N	rare
	lady fern	Athyrium filix-femina	N	common
	hay-scented fern	Dennstaedtia punctilobula	N	common
	spinulose wood fern	Dryopteris carthusiana	N	common
	crested wood fern	Dryopteris cristata	N	common
	intermediate wood vern	Dryopteris intermedia	N	common
	marginal shield fern	Dryopteris marginalis	N	common
	water clover	Marsilea quadrifolia		common
	ostrich fern	Matteuccia struthiopteris	N	rare
	sensitive fern	Onoclea sensibilis	N	common
	cinnamon fern	Osmunda cinnamomea	N	common
	interrupted fern	Osmunda claytoniana	N	common
	royal fern	Osmunda regalis	N	common
	polypody	Polypodium virginianum	N	common
	bracken fern	Pteridium aquilinum	N	common
	New York fern	Thelypteris novaboracensis	N	common
	marsh fern	Thelypteris palustris	N	common
	Massachusetts fern	Thelypteris simulata	N	rare
	Virginia chain fern	Woodwardia virginica	N	rare
HORSE1	-AILS			
	field scouring rush	Equisetum arvense	N	uncommon
CLUB M	OSSES and SPIKEMOSSES			
	ground cedar	Diphasiastrum digitatum	N	common
	running clubmoss	Lycopodium clavatum	N	rare
	tree clubmoss	Lycopodium obscurum	N	common
	rock spikemoss	Selaginella rupestris	N	rare
CONIFE	RS			
Cedar Fa	amily - Cupressaceae			
	pasture jupiper	Juniperus communis	N	rare
	red cedar	Juniperus virginiana	N	common
Pine Far	nily - Pinaceae			
	norway spruce	Picea abies	1	common
	blue spruce	Picea pungens	1	uncommon
	pitch pine	Pinus rigida	N	uncommon
	white pine	Pinus strobus	N	common
	scotch pine	Pinus sylvestris	I	common
	eastern hemlock	Tsuga canadensis	N	common
Yew Fan	nily - Taxaceae			
	cultivated yew	Taxus cv		common

Family Co	mmon name	Scientific Name	Origin	Status
FLOWERING	PLANTS			
Maple Family	y - Aceraceae			
box	x elder	Acer negundo	N	common
nor	rway maple	Acer platanoides	I	common
syc	camore maple	Acer pseudoplatanus	I	uncommon
red	d maple	Acer rubrum	N	common
silv	ver maple	Acer saccharinum	N	uncommon
Water Planta	in Family - Alismataceae			
wa	ter plantain	Alisma plantago-aquatica	N	common
cor	mmon arrowhead	Sagittaria latifolia	N	common
Amaranth Fa	mily - Amaranthaceae			
pig	weed	Amaranthus retroflexus	l	rare
Cashew Fam	ily - Anacardiaceae			
	nged sumac	Rhus coppalinum	N	uncommon
sm	ooth sumac	Rhus glabra	N	common
sta	ighorn sumac	Rhus hirta	N	common
poi	ison ivy	Toxicodendron radicans	N	common
poi	ison sumac	Toxicodendron vernix	N	
Parsley Fami	ily - Apiaceae			
goı	utweed	Aegopodium podagraria	I	uncommon
bul	lb-bearing water hemlock	Cicuta bulbifera	N	rare
wa	ter hemlock	Cicuta maculata	N	uncommon
poi	ison hemlock	Conium maculatum	Į	rare
que	een anne's lace	Daucus carota	I	common
wa	ter pennywort	Hydrocotyle americana	N	uncommon
wa	ter parsnip	Sium suave	N	rare
Dogbane Far	mily - Apocynaceae			
spr	reading dogbane	Apocynum androsaemifolium.	N	common
per	riwinkle	Vinca minor	I	common
-	- Aquifoliaceae			
wir	nterberry	llex verticillata	N	common
Arum Family				
jac	k-in-the-pulpit	Arisaema triphyllum	N	common
cal	la	Calla palustris	N	uncommon
	ow arum	Peltandra virginica	N	common
skı	unk cabbage	Symplocarpus foetidus	N	common
Aralia Family				
	stly sasparailla	Aralia hispida	N	rare
wild	d sasparilla	Aralia nudicaulis	N	common

Family	Common name	Scientific Name	Origin	Status
Milkweed	l Family - Asclepiadaceae			-
	poke milkweed	Asclepias exaltata	Ν	uncommon
	swamp milkweed	Asclepias incarnata	N	common
	milkweed	Asclepias syriaca	N	common
	black swallowwort	Cynanchum Iouiseae	l	common
	pale swallowwort	Cynanchum rossicum	1	uncommon
Composi	te Family - Asteraceae			
	yarrow	Achillea millefolium	Ì	common
	ragweed	Ambrosia artimissifolia	N	common
	pearly everlasting	Anaphalis margaritacea	Ì	common
	pussytoes	Antennaria neglecta	N	rare
	pussytoes	Antennaria plantaginifolia	N	rare
	burdock	Arctium minus	Ĩ	common
	mugwort	Artemisia vulgaris	i	common
	sharp-leaved aster	Aster acuminatus	N	rare
	northern heart-leaved aster	Aster ciliolatus	N	rare
	heart-leaved aster	Aster cordifolius	N	rare
	white wood aster	Aster divaricatus	N	common
	calico aster	Aster lateriflorus	N	common
	large-leaved aster	Aster macrophyllus	N	common
	late purple aster	Aster patens	N	rare
	toothed white-topped aster	Aster paternus	N	rare
	purple-stemmed aster	Aster puniceus	N	rare
	tartarian aster	Aster puriceus Aster tartaricus	IN I	rare
	flat-topped aster	Aster tartancus Aster umbellatus	N	rare
		Bidens connata	N	
	swamp beggars ticks tickseed sunflower	Bidens comnata	N	rare
		Bidens frondosa	N	rare
	beggars ticks		IN I	common
	chicory canada thistle	Cichorium intybus	į į	common
		Cirsium arvense	l i	uncommon
	common thistle	Cirsium vulgare	I NI	rare
	horseweed	Conyza canadensis	N	common
	coreopsis	Coreopsis grandiflora	I N	rare
	pilewort	Erechtites hieraciifolia	N	common
	daisy fleabane	Erigeron annuus	N	common
	common fleabane	Erigeron philadephicum	N	rare
	lesser daisy fleabane	Erigeron strigosus	N	common
	eastern joe-pye-weed	Eupatorium dubium	N	common
	spotted joe-pye-weed	Eupatorium maculatum	N	common
	boneset	Eupatorium perfoliatum	N	rare
	round-leaved boneset	Eupatorium rotundifolium var ovatum	N	rare
	grass-leaved goldenrod	Euthamia graminifolia	N	common
	low cudweed	Gnaphalium uliginosum	N	common
	winged sneezeweed	Helenium flexuosum	I	rare
	woodland sunflower	Helianthus divaricatus	N	uncommon
	meadow hawkweed	Hieracium caespitosum	I	common
	canada hawkweed	Hieracium canadense	N	rare
	panicled hawkweed	Hieracium paniculatum	N	uncommon
	Savoy hawkweed	Hieracium sabaudum	I	common
	rattlesnake hawkweed	Hieracium venosum	N	uncommon

Family	Common name	Scientific Name	Origin	Status
	whip hawkweed	Hieracium x flagellare		uncommon
	cats ears	Hypochaeris radicata		common
	stiff-leaved aster	Ionactis linariifolius	N	rare
	wild blue lettuce	Lactuca biennis	N	common
	wild lettuce	Lactuca canadensis	N	common
	autumn dandelion	Leontodon autumnalis	1	common
	daisy	Leucanthemum vulgare	j	common
	pineapple weed	Matricaria discoidea	j	common
	tall white lettuce	Prenanthes altissima	N	common
	tall rattlesnake root	Prenanthes trifoliolata	N	common
	black-eyed susan	Rudbeckia hirta	Ţ	common
	cup plant	Silphium perfoliatum	I	rare
	silverrod	Solidago bicolor	N	uncommon
	blue-stem goldenrod	Solidago caesia	N	common
	canada goldenrod	Solidago canadensis	N	common
	late goldenrod	Solidago gigantea	N	uncommon
	early goldenrod	Solidago juncea	N	common
	gray goldenrod	Solidago nemoralis	N	rare
	rough goldenrod	Solidago rugosa	N	common
	spiny-leaved sow thistle	Sonchus asper	j	uncommon
	common sow thistle	Sonchus oleraceus	Ţ	rare
	tansy	Tanacetum vulgare	I	common
	dandelion	Taraxacum officinale	I	common
Touch-M	le-Not Family - Balsaminaceae			
	jewelweed	Impatiens capensis	N	common
Barberry	/ Family - Berberidaceae			
	japanese barberry	Berberis thunbergii	Ţ	common
	korean barberry	Berberis vulgaris	I	uncommon
Birch Fa	mily - Betulaceae			
	alder	Alnus serrulata	N	common
	yellow birch	Betula allegheniensis	N	rare
	black birch	Betula lenta	N	common
	river birch	Betula nigra	N	rare
	paper birch	Betula papyrifera	N	rare
	gray birch	Betula populifolia	N	common
	ironwood	Carpinus caroliniana	N	rare
	hazelnut	Corylus americana	N	common
	beaked hazelnut	Corylus cornuta	N	common
	hop hornbean	Ostrya virginiana	N	common
Trumpet	: Creeper Family - Bignoniaceae			
	catalpa	Catalpa bignonioides	I	uncommon
Borage I	Family - Boraginaceae			
	viper's bugloss	Echium vulgare	I	rare
	forget me not	Myosotis scorpoides	i	uncommon
	orget me not	wydddid ddiffold <del>d</del> d	Ī	uncommon

Family	Common name	Scientific Name	Origin	Status
Mustard F	amily - Brassicaceae		-	
	garlic mustard	Alliaria petiolata		common
	mouse-ear cress	Arabidopsis thaliana	I	rare
	winter cress	Barbarea vulgaris	I	uncommon
	hoary alyssum	Berteroa incana	I	uncommon
	shepard's purse	Capsella bursa-pastoris	I	uncommon
	common bitter cress	Cardamine pensylvanica	N	uncommon
	hare's-ear mustard	Conringia orientalis	I	uncommon
	whitlow grass	Draba verna	I	uncommon
	dame's rocket	Hesperis matronalis	I	uncommon
	field cress	Lepidium campestre	I	uncommon
	wild peppergrass	Lepidium virginicum	N	common
	water cress	Rorippa nasturtium-aquaticum	I	uncommon
	hedge mustard	Sisymbrium officinale	I	rare
Boxwood	Family - Buxaceae			
	pachysandra	Pachysandra terminalis	I	rare
Water Shi	eld Family = Cabombaceae			
	fanwort	Cabomba caroliniana	Į	uncommon
Starwort F	Family - Callitrichaceae			
	variable water starwort	Callitriche heterophylla	N	uncommon
	spring water starwort	Callitriche palustris	N	common
Bellflower	· Family - Campanulaceae			
	marsh bellflower	Campanula aparinoides	N	rare
	creeping bellflower	Campanula rapunculoides	I	common
	indian tobacco	Lobelia inflata	N	uncommon
Hops Fam	ily - Cannabaceae			
	hops	Humulus lupulus	1	rare
Honeysuc	kle Family - Caprifoliaceae			
_	bush honeysuckle	Diervilla lonicera	N	common
	japanese honeysuckle	Lonicera japonica	I	uncommon
	Morrow honeysuckle	Lonicera morrowii	I	common
	belle honeysuckle	Lonicera x bella	I	uncommon
	Tartarian honeysuckle	Lonicera tartarica	I	uncommon
	elderberry	Sambucus canadensis	N	common
	maple-leaved viburnum	Viburnum acerifolium	N	common
	arrowwood	Viburnum dentatum	N	common
	nannyberry	Viburnum lentago	N	uncommon
	wild raisin	Viburnum nudum	N	common
	wild cranberry	Viburnum opulus var opulus	I	common
Pink Fami	ly - Caryophyllaceae			
	field chickweed	Cerastium arvense	N	common
	mouse-ear chickweed	Cerastium fontanum	I	uncommon
	little mouse-ear chickweed	Cerastium semidecandrum.		uncommon
	Deptford pink	Dianthus armeria	Ī	common

Family	Common name	Scientific Name	Origin	Status
	ragged robin	Lychnis flos-cuculi	1	rare
	grove sandwort	Moehringia lateriflora	N	rare
	japanese pearlwort	Sagina japonica	I	rare
	bouncing bet	Saponaria officinalis	I	common
	annual knawel	Scleranthus annuus	I	common
	white campion	Silene latifolia	Į	uncommon
	night-flowering catchvly	Silene noctiflora		uncommon
	bladder campion	Silene vulgaris	I	common
	common stitchwort	Stellaria graminea		common
	common chickweed	Stellaria media		uncommon
Staff-Tre	ee Family - Celastraceae			
	oriental bittersweet	Celastrus orbiculata	Ī	common
	winged euonymus	Euonymus alata		common
	European spindle tree	Euonymus europaea		uncommon
	winter creeper	Euonymus fortunei		common
Hornwo	rt Family - Ceratophyllaceae			
	hornwort	Ceratophyllum demursum	N	common
Goosefo	oot Family - Chenopodiaceae			
	lamb's quarters	Chenopodium album	I	common
Rockros	se Family - Cistaceae			
	hoary frostweed	Helianthemum bicknellii	N	rare
	large-fruited pinweed	Lechea intermedia	N	uncommon
	hairy pinweed	Lechea mucronata	N	rare
	slender pinweed	Lechea tenuifolia	N	uncommon
White Al	lder Family - Clethraceae			
	sweet pepperbush	Clethra alnifolia	N	common
St John'	's Wort Family - Clusiaceae			
	northern St. John's wort	Hypericum boreale	N	rare
	Canada St. John's wort	Hypericum canadense	N	uncommon
	orange grass	Hypericum gentianoides	N	rare
	common St. John's wort	Hypericum perforatum		common
	spotted St. John's wort	Hypericum punctatum		common
	marsh St. John's wort	Triadenum virginicum	N	common
Dayflow	er Family - Commelinaceae			
•	dayflower	Commelina communis	I	rare
	spiderlily	Tradescantia virginiana		rare
Morning	Glory Family - Convolvulaceae			
	wild morning glory	Calystegia sepium	N	common
Dogwoo	od Family - Cornaceae			
<b>.</b>	silky dogwood	Cornus amomum	N	common
	flowering dogwood	Cornus florida	N	common
	gray dogwood	Cornus racemosa	N	common
	5 , 5	=		

Family	Common name	Scientific Name	Origin	Status
				_
Stonecr	op Family - Crassulaceae			
	mossy stonecrop	Sedum acre	I	rare
Gourd F	amily - Cucurbitaceae			
	wild cucumber	Sicyos angulata	N	rare
		3		
Dodder	Family - Cuscutaceae			
	dodder	Cuscuta gronovii	N	common
Sedge F	amily - Cyperaceae			
ocuge i	sand sedge	Bulbostylis capillaris	N	rare
	yellow fox sedge	Carex annectens	N	common
	Atlantic prickly sedge	Carex atlantica ssp atlantica	N	rare
	threadstem sedge	Carex atlantica spp capillacea	N	rare
	woodland sedge	Carex blanda	N	common
	short fescue sede	Carex brevior	N	uncommon
	brome sedge	Carex bromoides	N	uncommon
	silvery bog sedge	Carex canescens	N	rare
	oval-headed sedge	Carex cephalophora	N	common
	bottlebrush sedge	Carex comosa	N	rare
	European star sedge	Carex contigua	î	uncommon
	fringed sedge	Carex crinita	N	common
	crowned sedge	Carex cumulata	N	rare
	stalked sedge	Carex debilis	N	common
	slender wood sedge	Carex digitalis	N	rare
	slender drooping sedge	Carex gracillima	N	rare
	Hayden's sedge	Carex haydenii	N	rare
	hairy sedge	Carex hirta	Ĩ	rare
	bladder sedge	Carex intumescens	N	rare
	lakeside sedge	Carex lacustris	N	common
	broad wooly-fruited sedge	Carex lanuginosa	N	uncommon
	slender wooly-fruited sedge	Carex lasiocarpa	N	rare
	spreading wood sedge	Carex laxiculmis	N	common
	one-nerved wood sedge	Carex leptonervia	N	rare
	Long's sedge	Carex longii	N	rare
	long-beaked Pennsylvania sedge	Carex lucorum	N	rare
	hop sedge	Carex Iupulina	N	uncommon
	sallow sedge	Carex Iurida	N	common
	Fernald's sedge	Carex merritt-fernaldii	N	uncommon
	big straw sedge	Carex normalis	N	common
	shining green sedge	Carex pallescens	N	rare
	Pennsylvania sedge	Carex pensylvanica	N	common
	beaded broom sedge	Carex projecta	N	uncommon
	big star sedge	Carex rosea	N	common
	stiff sand sedge	Carex rugosperma var tonsa	N	common
	broom sedge	Carex scoparia	N	common
	awl-fruited sedge	Carex stipata	N	common
	tussock sedge	Carex stricta	N	common
	Swan's sedge	Carex swanii	N	common
	slender straw sedge	Carex tenera	N	uncommon

Family	Common name	Scientific Name	Origin	Status
	blunt broom sedge	Carex tribuloides	N	common
	bottle sedge	Carex utriculata	N	uncommon
	inflated sedge	Carex vesicaria	N	uncommon
	velvet-fruited sedge	Carex vestita	N	common
	fox sedge	Carex vulpinoidea	N	common
	slender sand flatsedge	Cyperus lupulinus	N	uncommon
	straw-colored flatsedge	Cyperus strigosus	N	common
	three-way sedge	Dulichium arundinaceum	N	common
	ovate spike rush	Eleocharis obtusa	N	uncommon
	creeping spike rush	Eleocharis palustris	N	uncommon
	slender spike rush	Eleocharis tenuis	N	rare
	brown beak rush	Rhynchospora capitellata	N	rare
	black bulrush	Scirpus atrovirens	N	common
	wool grass	Scirpus cyperinus	N	common
	soft-stemmed bulrush	Scirpus taebernaemontani	N	rare
Sundew	Family - Droseraceae			
	round-leaved sundew	Drosera rotundifolia	N	rare
Oleastei	<sup>-</sup> Family - Elaeagnaceae			
	autumn olive	Elaeagnus umbellata	I	uncommon
Heather	Family - Ericaceae			
	bearberry	Arctostaphylos uva-ursi	N	rare
	leatherleaf	Chamaedaphne calyculata	N	common
	wintergreen	Gaultheria procumbens	N	common
	huckleberry	Gaylussacia baccata	N	common
	dangle berry	Gaylussacia frondosa	N	common
	sheep laurel	Kalmia angustifolia	N	common
	fetterbush	Leucothoe racemosa	N	common
	maleberry	Lyonia ligustrina	N	common
	swamp azalea	Rhododendron viscosum	N	common
	late sweet lowbush blueberry	Vaccinium angustifolium	N	common
	highbush blueberry	Vaccinium corymbosum	N	common
	large cranberry	Vaccinium macrocarpon	N	uncommon
	early sweet lowbush blueberry	Vaccinium pallidum	N	common
Spurge	Family - Euphorbiaceae			
. •	broad three-seeded mercury	Acalypha rhomboidea	N	common
	cypress spurge	Euphorbia cyparissus	Ì	common
	spotted spurge	Chamaesyce maculata	N	common
Pea Fam	nily - Fabaceae			
	false indigo	Amorpha fruticosa	I	uncommon
	hog peanut	Amphicarpaea bracteata	N	uncommon
	groundnut	Apios americana	N	common
	yellow wild indigo	Baptisia tinctoria	N	common
	crown vetch	Coronilla varia	Ï	uncommon
	scotch broom	Cytissus scoparius	I	rare
		•	N	
	naked tick-trefoil	Desmodium nudiflorum	IV	rare

Family	Common name	Scientific Name	Origin	Status
	prostrate tick-trefoil	Desmodium rotundifolium	N	rare
	round-headed bush clover	Lespedeza capitata	N	uncommon
	hairy bush clover	Lespedeza hirta	N	common
	wand bush clover	Lespedeza intermedia	N	uncommon
	birdsfoot trefoil	Lotus corniculatus	1	common
	black medick	Medicago lupulina	1	uncommon
	lucerne	Medicago sativa	I	rare
	white sweet clover	Melilotis alba	I	uncommon
	black locust	Robinia pseudoacacia	I	common
	rabbit foot clover	Trifolium arvense	I	common
	yellow hop clover	Trifolium aureum	I	rare
	low hop clover	Trifolium campestre	I	uncommon
	alsike clover	Trifolium hybridum		common
	red clover	Trifolium pratense		uncommon
	white clover	Trifolium repens	I	common
	cow vetch	Vicia cracca	I	common
	four-seeded vetch	Vicia tetrasperma	I	uncommon
	hairy vetch	Vicia villosa	I	common
Oak Fan	nily - Fagaceae			
	american chestnut	Castanea dentata	N	common
	beech	Fagus grandifolia	N	common
	white oak	Quercus alba	N	common
	swamp white oak	Quercus bicolor	N	common
	scarlet oak	Quercus coccinea	N	common
	scrub oak	Quercus ilicifolia	N	common
	pin oak	Quercus palustris	N	common
	dwarf chestnut oak	Quercus prinoides	N	uncommon
	red oak	Quercus rubra	N	common
	black oak	Quercus velutina	N	common
Fumitor	y Family - Fumariaceae			
	pink corydalis	Corydalis sempervirens	N	uncommon
Gentian	Family - Gentianaceae			
	screw-stem	Bartonia virginica	N	rare
Geraniu	m Family - Geraniaceae			
	wild geranium	Geranium maculatum	N	common
	herb-robert	Geranium robertianum	N	rare
Goosebe	erry Family - Grossulariaceae			
	red currant	Ribes rubrum	I	rare
Water M	ilfoil Family - Haloragaceae			
	eurasian milfoil	Myriophyllum spicatum	1	common
Witch Ha	azel Family - Hamamelidaceae			
	witch hazel	Hamamelis virginiana	N	common

Family	Common name	Scientific Name	Origin	Status
Hydrang	jea Family - Hydrangeaceae			
	peegee hydrangea	Hydrangea paniculata	į	rare
	European mock orange	Philadephus coronarius	I	uncommon
Frog's E	Bit Family - Hydrocharitaceae			
	Brazilian water weed	Egeria densa	l	uncommon
	Northern water weed	Elodea canadensis	N	common
	wild celery	Vallisneria americana	N	common
Iris Fam	ily - Iridaceae			
	yellow iris	Iris pseudacorus	i	common
	blue flag	Iris versicolor	N	common
Hickory	Family - Juglandaceae			
	mockernut	Carya alba	N	uncommon
	bitternut	Carya cordiformis	N	uncommon
	pignut	Carya glabra	N	common
	false shagbark hickory	Carya ovata	N	common
	shagbark hickory	Carya ovalis	N	common
Rush Fa	mily - Juncaceae			
	sharp-fruited rush	Juncus acuminatus	N	rare
	narrow rush	Juncus brevicaudatus	N	rare
	Canada rush	Juncus canadensis	N	rare
	soft rush	Juncus effusus	N	common
	Greene's rush	Juncus greenei	N	rare
	path rush	Juncus tenuis	N	common
	wood rush	Luzula multiflora	N	common
Mint Far	mily - Lamiaceae			
	hemp nettle	Galeopsis bifida	i	uncommon
	gill-over-the-ground	Glechoma hederacea	i	uncommon
	purple dead nettle	Lamium purpureum	i	rare
	motherwort	Leonurus cardiaca	1	rare
	American water horehound	Lycopus americanus	N	rare
	common water horehound	Lycopus uniflorus	N	uncommon
	Virginia water horehound	Lycopus virginicus	N	uncommon
	wild mint	Mentha canadensis	N	rare
	selfheal	Prunella vulgaris	1	common
	common skullcap	Scutellaria galericulata	N	rare
	mad-dog skullcap	Scutellaria lateriflora	N	rare
	hybrid skullcap	Scutellaria x churchilliana	N	common
	woundwort	Stachys palustris	1	rare
	blue curls	Trichostema dichotomum	N	rare
Laurel F	amily - Lauraceae			
	spicebush	Lindera benzoin	N	uncommon
	sassafras	Sassafras albidum	N	common

Family	Common name	Scientific Name	Origin	Status	
Duckwe	Duckweed Family - Lemnaceae				
	duckweed	Lemna minor	N	common	
	big duckweed	Spirodela polyrrhiza	N	common	
	papillate water meal	Wolffia brasiliensis	N	uncommon	
	globose water meal	Wolffia columbiana	N	common	
Bladder	wort Family - Lentibulariaceae				
	lesser bladderwort	Utricularia minor	N	rare	
	common bladderwort	Utricularia macrorhiza	N	uncommon	
Lily Fam	nily - Liliaceae				
	field garlic	Allium vineale	I	rare	
	asparagus	Asparagus officinalis	l	uncommon	
	lily of the valley	Convallaria majalis	I	common	
	day lily	Hemerocallis fulva	I	common	
	yellow star grass	Hypoxis hirsuta	N	common	
	canada lily	Lilium canadense	N	rare	
	canada mayflower	Maianthemum canadense	N	common	
	false solomon's seal	Maianthemum racemosum	N	common	
	indian cucumber root	Medeola virginiana	N	common	
	solomon's seal	Polygonatum pubescens	N	common	
	nodding trillium	Trillium cernuum	N	rare	
	sessile-leaved bellwort	Uvularia sessilifolia	N	common	
	false hellebore	Veratrum viride	N	rare	
Loosest	rife Family - Lythraceae				
	water willow	Decodon verticillatus	N	common	
	purple loosestrife	Lythrum salicaria	l	common	
Mallow I	Family - Malvaceae				
	swamp mallow	Hibiscus moscheutos	N	common	
Carpetw	reed Family - Molluginaceae				
	carpetweed	Mollugo verticillata	I	uncommon	
Indian P	ipe Family - Monotropaceae				
	pine sap	Monotropa hypopitys	N	uncommon	
	indian pipe	Monotropa uniflora	N	common	
Mulberr	y Family - Moraceae				
	white mulberry	Morus alba	I	rare	
Sweet G	ale Family - Myricaceae				
	sweet fern	Comptonia peregrina	N	common	
Water Li	ily Family - Nymphaceae				
	white water lily	Nymphaea odorata	N	common	
	spatterdock	Nuphar variegata	N	common	
Tupelo I	Family - Nyssaceae				
,	tupelo	Nyssa sylvatica	N	common	
	•	- ·			

Family	Common name	Scientific Name	Origin	Status	
Olivo Fo	Olive Family - Oleaceae				
Olive Fa	white ash	Fraxinus americana	N	common	
	green ash	Fraxinus pennsylvanica	N	uncommon	
	privet	Ligustrum vulgare	1	common	
	privot	Ligaen am Vaigare	•	COMMICH	
Evening	Primrose Family - Onagraceae	Circa a sa tatatian a	N		
	enchanter's nightshade	Circaea lutetiana	N	common	
	glandular willow herb eastern willow herb	Epilobium ciliatum	N	uncommon	
		Epilobium coloratum	N	rare	
	water purslane	Ludwigia palustris	N	uncommon	
	common evening primrose	Oenothera biennis	N	common	
Orchid F	amily- Orchidaceae				
	pink lady's slipper	Cypripedium acaule	N	common	
	helleborine	Epipactis helleborine		uncommon	
	rattlesnake plantain	Goodyera pubescens	N	uncommon	
Broomra	ape Family - Orobanchaceae				
	beech drops	Epifagus virginiana	N	rare	
Wood Se	orrel Family - Oxalidaceae				
	showy yellow wood sorrel	Oxalis dillenii	N	common	
	common yellow wood sorrel	Oxalis stricta	N	common	
Ponny F	amily - Papaveraceae				
г орру г	celandine	Chelidonium majus	Ì	common	
	plume poppy	Macleaya cordata		rare	
	bloodroot	Sanguinaria canadensis	Ņ	rare	
Dalassa	ad Familia. Bladalassassa				
Pokewe	ed Family - Phytolaccaceae	DI	N.1		
	pokeweed	Phytolacca americana	N	common	
Plantain	Family - Plataginaceae				
	English plantain	Plantago lanceolata		common	
	rat-tail plantain	Plantago aristata		common	
	common plantain	Plantago major		common	
	American plantain	Plantago rugelii	N	common	
Grass Fa	amily - Poaceae				
	velvet bentgrass	Agrostis canina	l	rare	
	Rhode Island bentgrass	Agrostis capillaris	l	rare	
	redtop	Agrostis gigantea	l	common	
	southern ticklegrass	Agrostis hyemalis	N	rare	
	upland bentgrass	Agrostis perennans	N	common	
	northern ticklegrass	Agrostis scabra	N	uncommon	
	meadow foxtail	Alopecurus pratensis	I	rare	
	sweet vernal grass	Anthoxanthum odoratum	I	common	
	poverty grass	Aristida dichotoma	N	common	
	prairie three-awn	Aristida oligantha	<u> </u>	uncommon	
	tall oat grass	Arrenatherum elatius	I	uncommon	

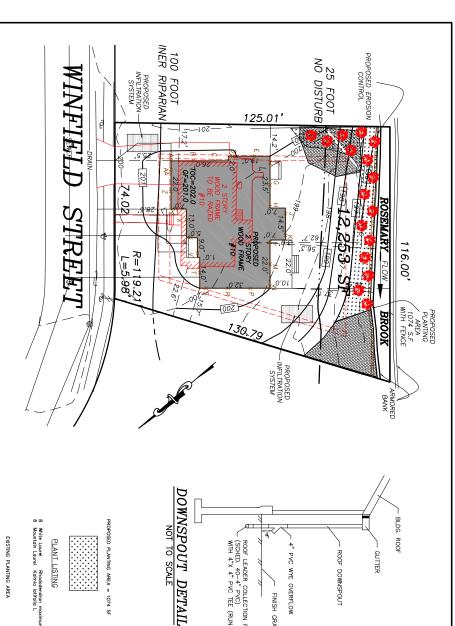
Family	Common name	Scientific Name	Origin	Status
	awned woodgrass	Brachyelytrum erectum	N	common
	smooth brome	Bromus inermis	l	common
	cheat grass	Bromus tectorum	l	common
	canada blue-joint	Calamagrostis canadensis	N	common
	reed blue-joint	Calamagrostis coarctata	N	rare
	common wood reedgrass	Cinna arundinacea	N	common
	orchard grass	Dactylis glomerata	I	common
	poverty grass	Danthonia spicata	N	common
	common hairgrass	Deschampsia flexuosa	N	rare
	fasicled panic grass	Dichanthelium acuminatum	N	common
	northern panic grass	Dichanthelium boreale	N	common
	deer tongue	Dichanthelium clandestinum	N	common
	depaperate panic grass	Dichanthelium depauperatum	N	common
	forked panic grass	Dichanthelium dichotomum	N	common
	linear-leaved panic grass	Dichanthelium linearifolium	N	uncommon
	Scribner's panic grass	Dichanthelium oligosanthes	N	rare
	round-fruited panic grass	Dichanthelium spaerocarpon	N	rare
	villous panic grass	Dichanthelium villossissimum	N	common
	smooth crabgrass	Digitaria ischameum	I	common
	tall crabgrass	Digitaria sanguinalis	I	common
	barnyard grass	Echinochloa crus-galli	l	rare
	cockspur grass	Echinochloa muricata	N	rare
	goose grass	Eleusine indica	I	rare
	quack grass	Elytrigia repens	l	common
	skunk grass	Eragrostis cilianensis	l	rare
	tufted love grass	Eragrostis pectinacea	Ŋ	rare
	India love grass	Eragrostis pilosa	I	uncommon
	purple love grass	Eragrostis spectabilis	N	common
	tall fescue	Festuca arundinacea	<u>l</u>	common
	hair fescue	Festuca filiformis	l	common
	sheep fescue	Festuca ovina	<u> </u>	common
	red fescue	Festuca rubra	Ŋ	common
	hard fescue	Festuca trachyphylla	<u> </u>	common
	canada manna-grass	Glyceria canadensis	N	common
	tall manna-grass	Glyceria grandis	N	rare
	coastal manna grass	Glyceria obtusa	N	rare
	eastern floatgrass	Glyceria septentrionalis	N	rare
	fowl manna grass	Glyceria striata	Ŋ	common
	velvet grass	Holcus lanatus	<u> </u>	rare
	rice cutgrass	Leersia oryzoides	Ņ	rare
	perennial ryegrass	Lolium perenne		uncommon
	marsh timothy	Muhlenbergia glomerata	N	rare
	spreading rice grass	Oryzopsus asperifolia	N	uncommon
	fall panic grass	Panicum dichotomiflorum	Ŋ	uncommon
	canary reed brass	Phalaris arundinacea	1	common
	timothy	Phleum pratense	1	common
	common reed	Phragmites australis	1	common
	annual bluegrass	Poa annua	1	common
	Canada bluegrass	Poa compressa	1	common
	woodland bluegrass	Poa nemoralis	1	rare
	fowl meadow grass	Poa palustris	N	common

Family	Common name	Scientific Name	Origin	Status
	kentucky bluegrass	Poa pratensis		common
	rough bluegrass	Poa trivialis	1	rare
	little bluestem	Schizachyrium scoparium	N	common
	foxtail grass	Setaria viridis	1	common
	freshwater cordgrass	Spartina pectinata	N	rare
	rough dropseed	Sporobolus compositus	I	rare
	poverty grass	Sporobolus vaginiflorus	N	uncommon
Milkwor	t Family - Polygalaceae			
	bitter milkwort	Polygala polygama	N	rare
	purple milkwort	Polygala sanguinea	N	rare
Smartwe	eed Family - Polygonaceae			
	water smartweed	Polygonum amphibium	N	common
	halberd-leaved tearthumb	Polygonum arifolium	N	common
	doorweed	Polygonum aviculare	l	rare
	japanese knotweed	Polygonum cuspidatum		common
	false water pepper	Polygonum hydropiperoides	N	rare
	lady's thumb	Polygonum persicaria		common
	dotted smartweed	Polygonum punctatum	N	rare
	arrow-leaf tearthumb	Polygonum sagittatum	N	common
	climbing false buckwheat	Polygonum scandens	N	rare
	sheep sorrel	Rumex acetosella	J	common
	curly dock	Rumex crispus	l	common
	bitter dock	Rumex obtusifolius	J	common
	great water dock	Rumex orbicularIs	N	rare
Pickerel	weed Family - Pontederiaceae			
	pickerel weed	Pontederia cordata	N	common
Pondwe	ed Family - Potamogetonaceae			
	curly pondweed	Potamogeton crispus	l	rare
	ribbon-leaf pondweed	Potamogeton epihydrus	N	common
	floating pondweed	Potamogeton natans	N	common
	Oakes' pondweed	Potamogeton oakesianus	N	rare
	tiny pondweed	Potamogeton pusillus	N	uncommon
	Robbins' pondweed	Potamogeton robbinsii	N	common
	northern snailseed pondweed	Potamogeton spirillus	N	common
Primros	e Family - Primulaceae			
	moneywort	Lysimachia nummularia	1	common
	whorled loosestrife	Lysimachia quadrifolia	N	common
	swamp candles	Lysimachia terrestris	N	common
	garden loosestrife	Lysimachia vulgaris	1	rare
	starflower	Trientalis borealis	N	common
Winterg	reen Family - Pyrolaceae			
	spotted wintergreen	Chimaphila maculata	N	common
	pipsissewa	Chimaphila umbellata	N	common
	shinleaf	Pyrola americana	N	common

Family	Common name	Scientific Name	Origin	Status		
Buttercu	Buttercup Family - Ranunculaceae					
	wood anemone	Anemone quinquifolia	N	common		
	columbine	Aquilegia canadensis	N	rare		
	marsh mallow	Caltha palustris	N	rare		
	virgin's bower	Clematis virginiana	N	uncommon		
	goldthread	Coptis trifolia	N	rare		
	small-flowered crowfoot	Ranunculus abortivus	N	rare		
	tall buttercup	Ranunculus acris	I	common		
	bulbous buttercup	Ranunculus bulbosus	I	common		
	creeping buttercup	Ranunculus repens	l	uncommon		
	celery-leaf crowfoot	Ranunculus scleratus	N	rare		
	tall meadow rue	Thalictrum pubescens	N	common		
Buckthor	n Family - Rhamnaceae					
	New Jersey Tea	Ceanothus americanus	N	rare		
	European buckthorn	Rhamnus cathartica	1	common		
	glossy buckthorn	Rhamnus frangula	I	common		
Rose Far	nily - Rosaceae					
	tall shadbush	Amelanchier arborea	N	common		
	red chokeberry	Aronia arbutifolia	N	common		
	black chokeberry	Aronia melanocarpa	N	common		
	marsh cinquefoil	Comarum palustre	N	rare		
	English hawthorn	Crataegus monogyna	I	common		
	wild strawberry	Fragaria virginiana	N	common		
	white avens	Geum canadense	N	common		
	crab apple	Malus pumila	I	common		
	silvery cinquefoil	Potentilla argentea	1	common		
	dwarf cinquefoil	Potentilla canadensis	N	common		
	rough cinquefoil	Potentilla norvegica	N	common		
	rough-fruited cinquefoil	Potentilla recta	1	rare		
	old field cinquefoil	Potentilla simplex	N	common		
	pin cherry	Prunus pennsylvanica	N	rare		
	black cherry	Prunus serotina	N	common		
	choke cherry	Prunus virginiana	N	common		
	multiflora rose	Rosa multiflora	I	common		
	swamp rose	Rosa palustris	N	common		
	wild rose	Rosa virginiana	N	uncommon		
	common blackberry	Rubus allegheniensis	N	common		
	northern dewberry	Rubus flagellaris	N	common		
	swamp dewberry	Rubus hispidus	N	common		
	raspberry	Rubus idaeus	N	common		
	black raspberry	Rubus occidentalis	N	rare		
	Pennsylvania blackberry	Rubus pensylvanicus	N	rare		
	dwarf raspberry	Rubus pubescens	N	rare		
	european mountain ash	Sorbus aucuparia	I	common		
	meadowsweet	Spiraea alba	N	common		
	steeplebush	Spiraea tomentosa	N	common		

Family	Common name	Scientific Name	Origin	Status
Madder F	amily - Rubiaceae			
	buttonbush	Cephalanthus occidentalis	N	common
	cleavers	Galium aparine	N	uncommon
	wild licorice	Galium lanceolatum	N	rare
	white bedstraw	Galium mollugo	I	uncommon
	sweet white woodruff	Galium odoratum	l	rare
	marsh bedstraw	Galium palustre	N	uncommon
	stiff marsh bedstraw	Galium tinctorium	N	rare
	northern three-lobed bedstraw	Galium trifidum	N	uncommon
	bluets	Houstonia caerulea	N	common
	partridge berry	Mitchella repens	N	common
Rue Fam	ily - Rutaceae			
	japanese cork tree	Phellodendron japonicum	I	rare
Willow Fa	amily - Salicaceae			
	white poplar	Populus alba	Ī	uncommon
	cottonwood	Populus deltoides	N	common
	big-toothed aspen	Populus grandidentata	N	common
	trembling aspen	Populus tremuloides	N	common
	weeping willow	Salix alba	l	uncommon
	pussy willow	Salix discolor	N	common
	heart-leaved willow	Salix eriocephala	N	rare
	crack willlow	Salix fragilis	l	rare
	shining willow	Salix lucida	N	rare
	black willow	Salix nigra	N	rare
	bog willow	Salix pedicillaris	N	rare
Sandalwo	ood Family - Santalaceae			
	bastard toadflax	Comandra umbellata	N	common
Figwort F	amily - Scrophulariaceae			
	slender gerardia	Agalinus tenuifolia	N	rare
	downy false foxglove	Aureolaria virginica	N	rare
	turtlehead	Chelone glabra	N	common
	foxglove	Digitalis purpurea	1	rare
	blue toadflax	Nuttallanthus canadensis	N	common
	butter and eggs	Linaria vulgaris		common
	cow wheat	Melampyrum lineare	N	common
	mullein	Verbascum thapsus		common
	corn speedwell	Veronica arvensis		common
	purslane speedwell	Veronica peregrina	N	rare
	marsh speedwell	Veronica scutellata	N	rare
	thyme-leaved speedwell	Veronica serpylifolia	I	common
Quassia	Family - Simaroubaceae			
	tree of heaven	Ailanthus altissima	I	common
Smilax Fa	amily - Smilacaceae			
	carrion flower	Smilax herbacea	N	common
	catbriar	Smilax rotundifolia	N	common

Family	Common name	Scientific Name	Origin	Status
<del>-</del> .	- II			
Iomato	Family - Solanaceae	Solanum dulcamara	1	aamman
	bittersweet nightshade	Solanum dulcamara Solanum nigrum	l I	common
	black nightshade	Solarium mgrum	ı	uncommon
Bur-reed	l Family - Sparganiaceae			
	common bur-reed	Sparganium americanum	N	common
	shining bur-reed	Sparganium androcladum	N	common
Linden F	amily - Tiliaceae			
	basswood	Tilia americana	N	uncommon
	linden	Tilia cordata	Î	rare
Cattail F	amily - Typhaceae			
	narrow-leaved cattail	Typha angustifolia	N	common
	broad-leaved cattail	Typha latifolia	N	common
Elm Fam	nily - Ulmaceae			
	american elm	Ulmus americana	N	rare
	wych elm	Ulmus glabra	1	common
Nettle Fa	amily - Urticaceae			
	false nettle	Boehmeria cylindrica	N	common
	stinging nettle	Urtica dioica	N	common
Vervain	Family - Verbenaceae			
vervani	blue vervain	Verbena hastata	N	rare
	white vervain	Verbena urticifolia	N	common
Violet Fa	amily - Violaceae			
	blue marsh violet	Viola cucullata	N	rare
	lance-leaved violet	Viola lanceolata	N	uncommon
	English violet	Viola odorata	ĺ	common
	birds-foot violet	Viola pedata	N	rare
	arrow-head violet	Viola sagittata	N	common
Grape Fa	amily - Vitaceae			
•	virginia creeper	Parthenocissus quinquifolia	N	common
	boston ivy	Parthenocissus tricuspidata	1	rare
	summer grape	Vitus aestivalis	N	common
	fox grape	Vitus labrusca	N	common
	•			



BLDG. ROOF

GUTTER

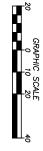
I CERTIFY THAT THE PARCEL SHOWN HEREON LIES WITHIN A ZONE "X", AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FATE MAP FLOOD INSURANCE RATE MAP FOR THE TOWN OF NEEDHAM, MASSACHUSETTS, COMMUNITY PANEL NO. 262515 0017 E. MAP NUMBER 25021C 0017 E EFFECTIVE DATE: JULY 17, 2012.

EXISTING IMPERVIOUS WITHIN THE 200 FOOT OUTER RIPAGIAN = 428 SF PROPOSED IMPERVIOUS WITHIN THE 200 FOOT OUTER RIPAGIAN = 563 SF NET INCREASE OF IMPERVIOUS WITHIN THE 200 FOOT OUTER RIPAGIAN = 1:35 SF EXISTING IMPERVIOUS WITHIN THE 100 FOOT INNER RIPARAIN = 1,928 SF PROPOSED IMPERVIOUS WITHIN THE 100 FOOT INNER RIPARAIN = 2,931 SF NET INCREASE OF IMPERVIOUS WITHIN THE 100 FOOT INNER RIPARIAN = 1,003 SF

EXISTING BUILDING WITHIN 100' INNER RIPARIAN =1,324 SF PROPOSED BUILDING WITHIN 100' INNER RIPARIAN = 2,368 SF INCRESSED BUILDING FOOTPRINT WITHIN 100' INNER RIPARIAN = 1,044 S.F.

(2,368 S.F. X 1") / 12 = 197.33 Cu. Ft.

MITIGATED WITH 4 CULTEC CONTRACTOR 150 HDXL
RECHARGER DRYWELL CHAMBERS (OR SUITABLE REPLACEMENT)
CAPACITY OF 53.73 CU FT EACH. (4.88 CU FT/FT X 11 FEET)
RECHARGE WILL MITIGATE COMPLETELY FOR THE PROPOSED FOOTPRINT
SEE DRYWELL DETAIL FOR SPECIFICATIONS
SEE DRYWELL DETAIL FOR SPECIFICATIONS
SEE DRYWELL DETAIL FOR SPECIFICATIONS
ANY BE ADJUSTED PRIOR TO CONSTRUCTION.



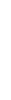
NOTES:

ELEVATIONS REFER TO PROJECT DATUM

C

9

- CONTOUR INTERVAL EQUALS ONE (1) FOOT.
- 3) UTILITY INFORMATION SHOWN IS BASED ON BOTH A FIELD SURFEY AND THE LATEST PLANS OF RECORD. THE LOCATIONS OF UNDERSEAUD CONDUITS HAVE BEEN DETERMINED FROM THE AFDREMENTIONED RECORD PLANS AND DETERMINED FROM THE AFDREMENTIONED RECORD PLANS AND ARE APPROXIMATE ONLY. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED AND THE ACTUAL LOCATION OF SUB-SURFACE STRUCTURES SHOULD BE DETERMINED IN THE FIELD. CALL, TOLL-FREE, THE DIG SAFE CALL CENTER AT 1-888-344-7233 (1-688-DIG-SAFE) SEVENTY-TWO HOURS PRIOR TO EXCANATION. હ



TOWN OF NEEDHAM MAP 128 PARCEL (

NORFOLK COUNTY REGISTRY OF DEEDS CERT# 203056 LCC 23510B Š

OWNER/APPLICANT:
ROBERT ROACHE
OAKCREST BUILDERS,
4 HOPEDALE STREET
MENDON, MA

STRAW WATTLE SECTION VIEW TWINE SOIL STRAW WATTLE -|-|-|-

White Laurel Rhododendron maximum Mountain Laurel Kalmia latifolia L

PLANT LISTING

EXISTING PLANTING AREA

PROPOSED PLANTING AREA = 1074 SF

NOT TO SCALE

INFILTRATION SYSTEM DETAILS

NOT TO SCALE

ROOF LEADER COLLECTION PIPE (SCHED. 40-4" PVC)
WITH 4"X 4" PVC TEE (RUN LEVEL)

HEALE-STATE CHARGE AND ALCOHOLOGY AND ALC

TOURNOTED FILE ADDINOUS PICTURE PARKS

ADDINOS FIGURE

ADDINOS

GOMERALINGTH RECHARCH WE ON CALTED, INC. OF JACONTECT CIT. RECHARCH WE ON THE OWN THE STANDARD LIVET THE VALLETON CALTED AND ADJUSTMENT THE OWN THE OWN THE METALLETON CALTED AND ADJUSTMENT THE THE OWN COLD THE APPLICATION OF THE OWN THE OWN THE OWN THE OWN COLD THE OWN COL

ALL BECHARDS MAYOR SANY OUT WITH ARE WARDS MITHA
DECLOSE THEY PORMATION THE AREA WOOD THE LENGTH OF
THE ON VISION SAND WARDS AND THE SAND WORK SAND WARDS
ADDRESS WITH MITHAUS AND WARDS AND THE SAND WARDS
FEDERAL REQUIRATIONS.

WHEN CONTRACTOR

10 (Mars 10) And the second second 4" PVC WYE OVERFLOW

FINISH GRADE VARIES

ROOF DOWNSPOUT

MINDLING WILLIAM

AGEN OF SHIP AGENCY AG

CONSERVATION COMMISSION
PLAN OF LAND
10 WINFIELD STREET
NEEDHAM, MA

JOB NO. 049-20 OCTOBER 5, 2020 Field Resources, LAND SURVEYORS SCALE 1"=20 : Inc

fieldresources@hotmail.com

P.O. BOX 324 AUBURN, MA 508 832 4332

281 CHESTNUT ST. NEEDHAM, MA. 781 444 5936

Copyright in by Field Resources, Inc. All rights reser

049-20